

REMARKS

Claims 1-30 remain in the referenced application. Claims 9 and 10 have been amended.

Claims 9 and 10 stand rejected under 35 U.S.C. §112, second paragraph, due to a lack of antecedent basis for the word “channel”. Responsive thereto, Applicant has amended claim 8 to depend from claim 7 and claims 9 and 10 to depend from claim 8. Applicant accordingly submits there now is antecedent basis for the word “channel” in claims 9 and 10 and therefore respectfully requests the withdrawal of the 35 U.S.C. §112, second paragraph, rejection of those claims.

Claims 1, 2, 15 and 21 stand rejected under 35 U.S.C. §102(b) by Knauss (U.S. Patent No. 4,485,449). Applicant respectfully traverses the above-recited rejection on the basis Knauss does not disclose a thermistor at least partially inserted into the volume and a sensor circuit adapted to cycle the thermistor between a zero-power mode and a self-heated mode.

In rejecting claim 1, the Examiner asserts temperature sensors 11 and 12 are thermistors. Applicant respectfully disputes this assertion. Knauss, in column 6, lines 60-65, and column 7, lines 44-46, clearly discloses that temperature sensors 11 and 12 are balanced resistance bridges consisting of four resistors, two of which are temperature sensors R_1 and R_2 and the other two are passive resistors R and R' of identical value. A four resistor bridge is simply not a single thermistor. The four resistor bridge includes temperature sensors R_1 and R_2 ; nevertheless, Knauss fails to disclose the specific devices that comprise the temperature sensors R_1 and R_2 . Knauss, accordingly, simply provides absolutely no disclosure regarding the use of thermistors in the temperature sensors 11 and 12. As such, a thermistor is not disclosed, and claim 1 is patentable over Knauss.

In rejecting claim 1, the Examiner further asserts dual current generators 23 and 24, disclosed in column 6, lines 48-60, cycle the temperature sensors 11 and 12 between a zero-power mode and a self-heated mode. Applicant respectfully disputes this assertion. Knauss provides absolutely no disclosure regarding the use of thermistors in the temperature sensors 11 and 12. Consequently, there are no thermistors for cycling by the dual current generators 23 and 24. Moreover, the “automatic zero circuit” is in no way related to the cycling of thermistors. Column 6, lines 48-60, clearly discloses “zero” to be a

condition occurring when the temperature registered by the temperature sensor 11 is identical to the temperature registered by temperature sensor 12. The dual current generators 23 and 24 therefore simply operate as part of the “automatic zero circuit” to ensure the “zero” condition occurring when the temperature registered by the temperature sensor 11 is identical to the temperature registered by temperature sensor 12 is true and accurate. The dual current generators 23 and 24, accordingly, in no way cycle thermistors between a zero-power mode and a self-heated mode. As such, the cycling of a thermistor between a zero-power mode and a self-heated mode is not disclosed, and claim 1 is patentable over Knauss.

In rejecting claim 2, the Examiner asserts a clock 26 and a flip-flop 31 are a configurable power controller that cycles the temperature sensors 11 and 12 between a zero-power mode and a self-heated mode. Applicant respectfully disputes this assertion. As previously argued Knauss provides absolutely no disclosure regarding the use of thermistors in the temperature sensors 11 and 12. Moreover, the clock 26 and the flip-flop 31 operate in the “automatic zero circuit” to ensure that the “zero” condition occurring when the temperature registered by the temperature sensor 11 is identical to the temperature registered by temperature sensor 12 is true and accurate. The clock 26 and the flip-flop 31 accordingly are not related to a thermistor circuit and in no way cycle thermistors between a zero-power mode and a self-heated mode. As such, a configurable power controller is not disclosed, and claim 2 is patentable over Knauss.

In rejecting claim 15, the Examiner asserts Knauss, in column 5, lines 37-68, discloses a reference circuit that stores a zero-power voltage as a reference value. Applicant respectfully disputes this assertion. Knauss, in column 5, lines 37-68, provides disclosure concerning the “automatic zero circuit”. The “reference voltage” disclosed therein accordingly relates to the “automatic zero circuit” and thus the “zero” condition that occurs when the temperature registered by the temperature sensor 11 is identical to the temperature registered by temperature sensor 12. The “reference voltage” accordingly is not in any way associated with a thermistor circuit. As such, a reference circuit that stores a zero-power voltage as a reference value is not disclosed, and claim 15 is patentable over Knauss.

In rejecting claim 21, the Examiner asserts Knauss, in column 15, lines 31-35, discloses a configurable constant voltage source that cycles the temperature sensors 11 and 12 between a zero-power mode and a self-heated mode. Applicant respectfully disputes this assertion. Knauss, in column 15, lines 31-35, clearly discloses applying a voltage to an integrator circuit. An integrator circuit is in no way related to a thermistor circuit. As such, a configurable constant voltage source is not disclosed, and claim 21 is patentable over Knauss.

Claim 7 stands rejected under 35 U.S.C. §103(a) by Knauss (U.S. Patent No. 4,485,449) in view of Pullen et al. (U.S. Patent No. 6,229,389 B1 - hereinafter referred to as Pullen). Applicant respectfully traverses the above-recited rejection. As previously argued, Knauss provides absolutely no disclosure regarding the use of thermistors in the temperature sensors 11 and 12. Consequently, there are no thermistors across which a voltage drop can be measured. Moreover, Pullen discloses sensing the voltage drop across MOSFETs. MOSFETs are not thermistors. Pullen accordingly does not in any way disclose measuring the voltage drop across a thermistor. As such, Knauss in view of Pullen does not disclose a conversion circuit for use in measuring the voltage drop across a thermistor, and claim 7 is patentable over that combination.

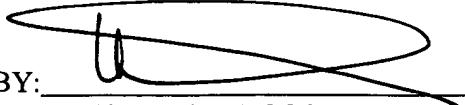
The prior made of record in the referenced application has been reviewed by Applicant and is deemed not to anticipate nor render obvious the claimed invention.

In view of the foregoing, Applicant respectfully requests reconsideration of the rejected claims and earnestly solicits early allowance of the application.

Respectfully submitted,

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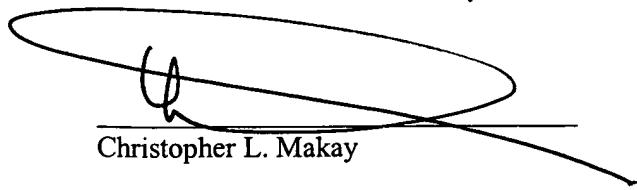
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